

CLAIMS

1. A dynamoelectric machine comprising:
 - a stator winding;
 - a temperature measuring means disposed in a vicinity of said stator winding in order to estimate stator winding temperature;
 - a thermally-conductive supporting portion for supporting said temperature measuring means; and
 - a thermally-conductive body interposed between said stator winding and said supporting portion for conducting heat from said stator winding to said supporting portion,

wherein:

an estimated value of said stator winding temperature is calculated using a sum of a measured temperature measured by said temperature measuring means and a correcting value.
2. The dynamoelectric machine according to Claim 1, wherein:

said supporting portion is constituted by a member that does not generate heat.
3. The dynamoelectric machine according to either of Claims 1 or 2, wherein:

said stator winding and said supporting portion are simultaneously cooled by an identical cooling medium.
4. The dynamoelectric machine according to any one of Claims 1 through 3, wherein:

said supporting portion is a separate member from a stator holding said stator winding.
5. The dynamoelectric machine according to any one of Claims 1 through 4, wherein:

said correcting value is determined using a function of a physical quantity based on a value of line current flowing through said stator winding.
6. The dynamoelectric machine according to Claim 5, wherein:

said correcting value is determined using a second-order function of

said value of said line current.

7. The dynamoelectric machine according to any one of Claims 1 through 6, wherein:

said estimated value is corrected by averaging over time.

8. The dynamoelectric machine according to any one of Claims 1 through 7, wherein:

said temperature measuring means is a temperature sensor.

9. The dynamoelectric machine according to any one of Claims 1 through 8, wherein:

an electric current flowing through said stator winding is suppressed if said estimated value is greater than or equal to a predetermined value.

10. The dynamoelectric machine according to any one of Claims 1 through 9, wherein:

an engine driven to rotate by said dynamoelectric machine is stopped if said estimated value is less than or equal to a predetermined value when a vehicle is stopped.

11. The dynamoelectric machine according to any one of Claims 1 through 10, wherein:

said supporting portion is disposed on a bracket for supporting a stator having said stator winding.

12. The dynamoelectric machine according to any one of Claims 1 through 10, wherein:

said supporting portion is disposed on an outer peripheral surface of a stator core to which said stator winding is mounted.

13. The dynamoelectric machine according to any one of Claims 1 through 12, wherein:

said thermally-conductive body is a stator core in which said stator winding is disposed.